already begun taking other steps in order to comply with the rules."[147/]

The Commission, as we discussed in our initial comments, should clearly announce that it is not an evasion of its rules to retier and rearrange program services.[148/] Nor is it an evasion, as certain commenters claim, to have raised rates prior to regulation.

The regulation of "evasions" cannot and should not be a back door means by which franchising authorities can circumvent the standards the Commission adopts governing reasonable basic service rates and unreasonable cable programming rates. As we described in our initial comments in this proceeding, once the Commission has its rate regulatory structures in place, there will be no need to adopt separate rules governing "evasions" of those rules.[149/]

147/ Local Governments Comments at 91.

148/ We are in agreement with the Consumer Federation's position that operators may retier their service offerings and that no "evasion" would be found based on that retiering so long as the shifting of service between tiers did not result in excessive increases in rates on basic service or overall. CFA Comments at 76.

149/ NCTA Comments at 81-82.

CONCLUSION

For the foregoing reasons, and for the reasons set forth in our initial comments, the Commission should adopt the benchmark approaches, rules and procedures that we have described.

Respectfully submitted,

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ECONOMIC COMMENTS ON THREE PROPOSALS FOR CABLE TELEVISION RATE REGULATION

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ECONOMISTS INCORPORATED

WASHINGTON

SUMMARY

This paper comments on three proposed approaches to cable rate regulation: (1) the approach suggested by the National Association of Broadcasters (NAB) in conjunction with Strategic Policy Research, Inc. (SPR); (2) the approach suggested by the Consumer Federation of America (CFA); and, (3) the approach suggested by a coalition of communities in conjunction with Jay Smith and Michael Katz (Smith and Katz). None of the proposals is a reasonable approach to rate regulation.

NAB/SPR propose a modified form of cost-of-service regulation where capital costs are benchmarked and service costs are passed-through. Smith and Katz propose a form of cost-of-service regulation where all costs, capital and noncapital, are benchmarked. Even by benchmarking some, or all, of a cable system's costs, these proposals do not eliminate the traditional distortions of cost-of-service regulation. In addition, the cost benchmark approach introduces new regulatory distortions. *The NAB/SPR and Smith and Katz proposals share a number of drawbacks, principally those long associated with cost-of-service regulation*:

- These proposals require the Commission to undertake the difficult task of establishing "typical" cable systems in order to benchmark capital costs. Developing "typical" benchmark cable systems would be a complex task due to the widely varying characteristics of existing cable systems. If these proposals were to be pursued, a complex set of capital cost requirements would have to be employed. The result is likely to be reduced operator incentives to invest in new capacity and new technology.

- The proposals require the Commission to undertake the difficult task of establishing the allowed rates of return and the rates of real economic depreciation.
- The proposals would require regulators to determine the "prudence" of various operating costs. Moreover, NAB/SPR's cost pass-through would reduce incentives to minimize costs. Smith and Katz's cost benchmark would reduce incentives to provide service and program quality above the benchmark levels.

The CFA approach in essence requires freezing a cable system's rate at its pre-deregulation level, adjusted only for inflation. While the CFA approach is not entirely clear, it would:

- Reduce or eliminate incentives to upgrade plant and equipment.
- Reduce or eliminate incentives to add additional channels of programming.
- Reduce the incentive of programmers to develop new quality services and thus reduce diversity in programming.

Moreover, the CFA proposal does not allow a cable system to recoup the cost of improved program quality. Indeed, CFA proposes that program quality be regulated by means of a quality index. CFA ignores the fact that program quality is inherently subjective, and hence not amenable to government regulation.

All three proposals wrongly assume that benchmark rates cannot be established based on effectively competitive systems. There is no basis for this assumption because it is possible to use rate data from the limited number of effectively competitive systems to establish benchmark rates, as outlined in our initial comments.

ECONOMIC COMMENTS ON THREE PROPOSALS FOR CABLE TELEVISION RATE REGULATION

Economists Incorporated (EI) has been asked by the National Cable Television Association (NCTA) to comment on the economic aspects of the cable television rate regulation proposals submitted in this proceeding on January 27, 1993 by three of the commentators in response to the Notice of Proposed Rule Making, MM Docket 92-266, adopted December 10, 1992, regarding Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992. In the discussion below, we deal *seriatim* with: (1) the comments of the National Association of Broadcasters (NAB) and the associated analysis of Strategic Policy Research (SPR);[1] (2) the comments of the Consumer Federation of America (CFA);[2] and, (3) the comments of Austin, Texas; Dayton, Ohio; Dubuque, Iowa; Gillette, Wyoming; Montgomery County, Maryland; St. Louis, Missouri; and Wadsworth, Ohio (Coalition) and the associated analysis of Messrs. Jay C. Smith and Michael Katz (Smith and Katz).[3]

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1 *Comments of the National Association of Broadcasters*, January 27, 1993 (hereafter, NAB Comments), and John Haring, Jeffrey Rohlfs, and Harry Shooshan III, *Efficient Regulation of Basic-Tier Cable Rates*, January 26, 1993 (hereafter, SPR Comments), attached as Appendix A to NAB Comments.

2 *Comments of Consumer Federation of America*, January 27, 1993 (hereafter, CFA Comments).

3 *Comments of Austin, Texas; Dayton, Ohio; Dubuque, Iowa; Gillette, Wyoming; Montgomery County, Maryland; St. Louis, Missouri; and Wadsworth, Ohio*, January 27, 1993 (hereafter, Coalition Comments), and Jay Smith and Michael Katz, *Report to the Federal Communications Commission in Response to Notice of Proposed Rulemaking to Implement Rate Regulation Sections of the Cable Television Consumer Protection and*

NAB PROPOSAL

NAB/SPR propose to regulate cable systems using traditional rate-of-return methods based on benchmark engineering estimates of replacement costs for capital equipment and on pass-through of all variable costs. We comment first on the rate base issues and then on the approach to variable costs.

Rate Base Issues

The NAB/SPR proposal is in many ways a throwback to pre-World War I cost-of-service, or rate-of-return, public utility regulation. The principal factor that differentiates the NAB/SPR proposal from most rate-of-return regulation is that it proposes to use a Commission estimate of replacement costs as the benchmark value for the cable rate base. Rather than examine the replacement costs of each system, the Commission would develop one or more national benchmarks which, perhaps with certain refinements, would be used to value all cable systems. The use of replacement costs (as opposed to original cost or fair value) has been an on-again, off-again issue in rate regulation for a century, and by definition requires regulators to estimate the costs of an imaginary system.[4] Using replacement cost solves none of the traditional problems of rate-of-return regulation. The NAB/SPR proposal is subject to the traditional objections to cost-of-service regulation that the Commission has recognized in its Notice. Chief among these objections is the deadening effect of such regulation on firm incentives, and harm to consumers.

Competition Act of 1992, January 27, 1993 (hereafter, Smith and Katz Report), Appendix 1 to Coalition Comments.

4 See generally C. F. Phillips, Jr., *The Economics of Regulation* (Homewood, Ill.: Irwin, rev. ed. 1969) pp. 216-260.

Difficulties in Establishing the Rate Base

Disputes about the measurement of replacement costs would be among the major difficulties that the Commission would face in implementing the NAB/SPR proposal. Commentators in earlier cable proceedings were unable to pinpoint replacement costs. Even critics of the cable industry, such as MacAvoy and Shooshan and Jackson, found a broad range between the low and high estimates of replacement costs and there was a substantial difference among the "preferred" estimates.[5] The Commission previously noted that "[t]here are also some questions regarding replacement cost estimates. The figure of $395 used in [MacAvoy's] preferred estimate is below, in some cases significantly, the alternatives MacAvoy and others presented on engineering models of cable construction costs. These range between $446 and $765."[6] [footnote omitted]

It is unclear whether NAB/SPR are making the traditional utility regulation distinction between "reproduction cost" and "replacement cost." Reproduction cost valuation of the rate base is based on the assumption that the old

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5 Paul MacAvoy, *Tobin's q and the Cable Industry's Market Power*, Appendix 5 to United States Telephone Association (USTA) *Comments*, filed March 1, 1990 in Docket No. 89-600. Shooshan & Jackson Inc., "Measuring the Market Power of the Cable Television Industry," appended to USTA *Comments*, November 1987, in CC Docket 87-266, and Shooshan & Jackson, Inc., "Measuring Cable's Market Power: Recent Developments," Appendix A, prepared for USTA, December 1988. MacAvoy's preferred estimate was $395 per subscriber, while Shooshan and Jackson present preferred estimates of $616 per subscriber and $603 per subscriber.

6 FCC, *Report* in MM Docket 89-600, *In the Matter of Competition, Rate Deregulation and the Commission's Policies Relating to the Provision of Cable Television Service* (adopted July 26, 1990, released July 31, 1990), Appendix E at ¶ 14.

plant is to be built in its depreciated condition at current capital equipment prices. In contrast, replacement cost valuation makes the assumption that the plant is a depreciated version of a state-of-the-art plant.

The reproduction cost assumption that you are going to build the old plant in its depreciated condition is a purely imaginary procedure, and therefore, as Phillips notes, "[r]eproduction cost is an imaginary cost."[7] Wilcox, outlines the inherent uncertainties of the concept:

> (1) What is it that is being reproduced: a modern replacement for an old plant, the old plant in its original condition, or the old plant as it stands today?...(2) Under what conditions is reproduction cost to occur: those originally existing or those existing at the present time?...(3) What methods of reproduction are to be assumed: simultaneous rebuilding of the whole plant involving large-scale operations and employing modern techniques, or piecemeal reconstruction on a small scale with techniques no longer in use?...(4) What prices are to be taken as representing reproduction cost: the spot prices of a particular day, the average prices of a recent period, or figures based on forecasts of the future?...[8]

Phillips notes that as a result of these uncertainties three conclusions follow: (1) "even expert and enlightened judgment will lead to vastly different fair value estimates of the same property;" (2) "the use of reproduction costs adds to regulatory delay;" and, (3) "reproduction cost valuations are expensive."[9]

In commenting on the choice of rate base, Weiss notes:

> The main argument for original cost is that it makes regulation much easier and therefore more effective. Replacement costs would require continuous changes in the accounts of the firms because of changing price levels and changing technology. They would provide much more room for argument in evaluating plant than original costs do.

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7 Phillips, *op. cit.*, p. 235.

8 Clair Wilcox, *Public Policies Toward Business* (Homewood, Ill.: Irwin, 3d ed. 1966), p. 317.

9 Phillips, *op. cit.*, p. 235-6.

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> Even in the heyday of "fair value" the utility commissions did not use replacement costs in this sense. They used "reproduction cost," the cost of reproducing the *same* plant at current prices even if the plant was out of date and no one would think of actually reproducing it. There is some plausible economic justification for using replacement costs but reproduction costs made a mockery of any logic there might have been.[10]

The replacement cost assumption that the plant is a depreciated version of a state-of-the-art plant, however, may not allow the system ever to recapture its actual investment if the state-of-the-art plant is redefined every year. In an industry such as cable, replacement cost calculations are likely to understate actual capital investment even when no rents are capitalized. To wipe out this value by using current replacement costs to set rates would reduce the *ex ante* rate-of-return below the level subsequently determined to be "fair". The result will be inefficiently low rates of future investment and a reduction in output, victimizing consumers.

The use of replacement costs in the NAB/SPR approach might require that real basic tier rates fall over time unless there is new construction. Since, as the plant ages, its replacement cost falls, the amount of capital on which an operator can earn a return also falls, hence the capital cost component of rates must fall.

SPR emphasizes that a great advantage of its proposal is that it uses a benchmark measure of capital costs rather than one based on the actual experience of each regulated firm. (SPR Comments at 10.) This benchmark is an engineering estimate of the system's replacement costs. But in order to avoid grave inaccuracies, such benchmarks must be adjusted for differences among

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10 Leonard Weiss, *Economics and American Industry* (New York: Wiley, 1966), p. 242.

systems, such as whether the cable is underground and whether the converters are addressable. Construction costs undoubtedly vary among geographic areas and the Commission would have to take that variation into account. Thus, replacement cost benchmarks would tend to become very system-specific, undercutting the stated advantages of the benchmark approach.

The SPR example of replacement cost calculations (SPR Comments, Technical Appendix) includes only expenditures for new miles of plant—it ignores expenditures for headend facilities and other distribution equipment. SPR also ignores the possibility that adding miles to existing plant may be less costly than building plant *de novo.*

Difficulties in Establishing the Allowed Return

Valuing the rate base is only the beginning of the difficulties that the Commission would face in implementing this proposal. The NAB/SPR proposal gives the Commission no guidance for dealing with the fact that historical costs of capital vary by firm. How is this variation to be taken into account without individual rate-of-return proceedings? The Commission presumably would need to develop a "proper" debt-equity ratio for financing cable systems. These considerations would raise all of the historically intractable and incentive-deadening problems long associated with rate-of-return regulation.

Further, the NAB/SPR proposal does not explain how real returns and depreciation are to be adjusted for inflation, how the appropriate depreciation rate (*i.e.*, the expected decline in the real replacement cost of the plant) is to be determined, or how to adjust for systems that rebuild or upgrade portions of their plant. Determining capital costs would require the Commission to fix the rate of depreciation and to estimate the real rate of interest. The depreciation rate depends on the future rate of technological obsolescence. The real rate of

interest is net of the expected rate of inflation. The NAB/SPR proposal provides the Commission with no guidance in making these difficult determinations.

Further, the SPR proposal seems to assume fixed factor coefficients, *i.e.*, that a cable operator cannot reduce its variable costs by adding capital equipment. This is clearly an unsound assumption for cable systems, where, for example, maintenance costs can be reduced by burying the cable. If the assumption is false, and if the rate of return is set too high, there will be a bias toward excessive capital intensity. If the rate is set too low, there will be a bias toward non-capital factors of production, particularly given global variable cost pass-through, and a deterrent to entry and rebuilding. Either result would be unfortunate for consumers.

Effective Competition Standard Entails More Than Reproduction Costs

The NAB/SPR assumption that the only assets of a cable system relevant to competitive pricing are plant and equipment is simply wrong. Any business has other assets—e.g., working capital and relationships with clients built through marketing expenditures. Even in markets where there is no issue of market power, firms are often valued above replacement costs of plant and equipment. It is unreasonable to ignore these assets in measuring invested capital, because to do so again distorts incentives.

The Commission itself has noted that "even if one were confident of the market value and replacement costs estimates, additional information and a substantial amount of additional analysis would be needed to translate the findings into information about how far cable rates diverge from the competi-

tive level."[11] Hence, to know what the rates would be under effective competition entails more than simply determining reproduction costs of plant and equipment.

Incentive Distortions

If, under the NAB/SPR approach, "benchmark" replacement capital costs are not flexible enough, a cable system's decision of how to upgrade will be distorted. While cost-of-service regulation based on a system's own costs reduces the incentive to minimize costs, SPR's proposed cost-of-service regulation based on a benchmark system gives each system the incentive to be no better than the benchmark system. An operator will have no incentive to introduce new technologies if it cannot earn an adequate return on that innovation, and it will not earn an adequate return if the innovation is not reflected in the benchmark system. In fact, systems will have no incentive to invest or upgrade. Rather, there will be an incentive for systems to be "worse" than the benchmark system since they would obtain the benchmark return anyway.

Finally, the NAB/SPR dichotomy between capital costs as "sunk" or fixed and non-capital costs as variable (SPR Comments at 11) makes no sense in this industry. Given the rapid rate of technological obsolescence in the cable industry, much of the plant and equipment costs are variable in a fairly short period of time, and presumably would be varied in response to incentives created by regulation.

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11 *In the Matter of Competition, Rate Deregulation and the Commission's Policies Relating to the Provision of Cable Television Service*, Report, MM 89-600 (adopted July 26, 1990, released July 31, 1990), Appendix E, at ¶14.

Variable Cost Issues

As is usual with rate-of-return regulation schemes, all variable costs under the NAB/SPR proposal would be passed through to the customer. (SPR Comments at 11.) This would attenuate operator incentives to control costs. SPR suggests (at 8) allowing operators to charge only for variable costs that are "prudently" incurred. This would necessitate prudence reviews in which regulators scrutinize in detail the operations of each regulated entity. Such reviews are inconsistent with the NAB/SPR proposal's repeated claims that it is designed to be carried out with limited resources.

Difficulties in Establishing "Prudent" Costs

The NAB/SPR proposal provides no guidance to local officials in assessing the reasonableness of program costs. Program license fees may vary considerably among cable systems. Since it is the local franchise authority, not the Commission, that will regulate basic cable rates, how will the local authority know if its cable system's programming costs are unreasonable high? For that matter, how will the authority know if the local system's operating expenses are unreasonably high, or prudently incurred? SPR's suggestion that the Commission could monitor programming costs seems to miss the point that the Commission would not be doing the regulating at this stage. It is unlikely that any local authority would have enough data on enough systems to assess reasonableness. The Commission could publish a set of reasonable cost standards, but then this becomes almost equivalent to the Commission bench marking variable costs, a position SPR opposes.

While the SPR report argues (at note 17) that transactions involving purchase of programming rights by cable systems from affiliated programmers can be effectively regulated, it is silent about other affiliate transactions, e.g.,

management fees, rent, and owners' salaries. These payments would present formidable problems for regulators.

Difficulties in Allocating Costs

NAB/SPR provides no basis for its proposal that the share of non-capital costs, including plant maintenance and operating costs, allocated to the basic tier should equal the percentage of programming costs attributable to channels on the basic tier. If the system pays no retransmission fees, and has no significant programming costs for its basic service tier, then none of its "variable" costs would be attributed to the basic service tier. That formula has no apparent justification and would have perverse incentive effects.

In addition, SPR ignores cost allocation problems that a local franchising authority will face when evaluating service costs. Similarly ignored is the problem of creating a consistent method for allocating various centralized multiple-system operator (MSO) costs among systems and for allocating costs to cable and non-cable related activities. With regard to allocating centralized MSO costs among systems, presumably there would have to be uniformity on a national level. If each franchise authority developed its own methodology each MSO's centralized costs may be over- or under-recovered.

Hypothesized Rates

NAB illustrates the effect of implementing its methodology with a "rough-cut," "back-of-the-envelope" calculation.[12] They claim that a system with a total of 40 channels, including 16 on the basic tier, would, on average, charge $4.52 for the basic tier.[13] From this NAB analysis, if all 40 channels

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12 SPR Comments at 13-14 and SPR Comments Summary at 2.

13 NAB Comments at 19.

were on the basic tier, the system would charge, on average, $11.30 for cable service. These rates correspond to 28¢ per channel in 1991 dollars, or approximately 23¢ per channel in 1986 dollars. But 23¢ is less than half the average price per channel prior to deregulation.[14]

Summary

NAB/SPR propose a hybrid approach to cost-of-service regulation. While this approach may mitigate some of the deleterious incentives of traditional cost-of-service regulation, many of those disincentives remain and some new disincentives are created. Additionally, the proposal entails incurring all of the burdens and costs of administering cost-of-service regulation.

NAB/SPR opt for their version of cost-based regulation after arguing that it is unlikely that there is a sufficient number of effectively competitive systems to enact a rate-based regulatory methodology.[15] However, it is possible to construct rate-based benchmarks based on effectively competitive systems, even if these systems comprise a small percentage of the industry.[16] A rate-based benchmark approach eliminates the regulatory distortions and costs associated with cost-of-service based approaches to regulation.

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14 FCC *Report* in MM Docket 89-600, *op. cit.*, Appendix F.

15 SPR Comments at 5.

16 See, Bruce Owen, Michael Baumann, and Harold Furchtgott-Roth, *Cable Rate Regulation: A Multi-Stage Benchmark Approach*, January 27, 1993, attached to *Comments of the National Cable Television Association, Inc.*, January 27, 1993.

CONSUMER FEDERATION PROPOSAL

CFA proposes a form of price cap regulation distinguished chiefly by its hostility to product innovation. Although the details are often complex and obscure, CFA apparently would allow each cable operator to charge an overall rate equal to the rate it charged in a base year before deregulation, such as 1983, adjusted *only* for inflation. While CFA describes an elaborate set of adjustments to these rates based on changes in the number of channels offered, all the complicated adjustments appear in the end to cancel each other out.[17] Thus, systems that have increased the number or quality of networks offered (since 1983) would not be allowed to recoup any of their additional costs by raising basic rates above 1983 levels. The CFA proposal would greatly diminish the incentives for cable operators to offer more channels.

Difficulties in Adjusting Pre-Deregulation Rates

CFA does not propose a specific base year for rates, but suggests that the Commission might have to use 1983 because cable operators might have been

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17 Because the CFA proposal is far from clearly stated, it is difficult to interpret. For example, under one interpretation it may be possible for cable operators to add channels and have the total allowed rate increase. First, one has to assume that when CFA says "number of basic channels" in one of their constraints they mean number of channels on the *lowest* basic tier, not *all* basic tiers. Second, none of the added channels can be among the top 30 cable networks. Third, the new channels have to be added to a tier that is not the basic service tier and is not a tier that contains any of the top 30 cable networks. Hence, one way to achieve this would be to add 2 new channels (neither of which is a top 30 network) to a new tier. In this case the rate(s) for the basic service tier and any tier that contained a top 30 network would fall, but not by as much as the operator could charge for the new tier. Even under this scenario, activating new channels will reduce system revenues unless almost all subscribers take the new tier.

gaming rates after that. CFA gives no reason to believe that operators could or did game rates before deregulation. CFA fails to realize that the further back in the past they push the base year, the less well that year will reflect any system's current reality. Further, CFA does not say what to do if the cable system was not in existence in 1983 (or in any given base year). The number of cable systems has approximately doubled since 1983, from 5,600 systems to over 11,000 systems.[18]

CFA argues (at 91) that it is sound to ignore the increase in number of channels and quality of programming services because these would have accrued to the subscribers under competition. This makes no sense. Competitive prices reflect both product cost and product quality. While the marginal cost of adding a channel may decline as the number of channels increases, nonetheless, there is a cost to adding channels and increasing quality. Even in a competitive market, subscribers benefit from increases in program choice and quality only if the amount they are willing to pay covers the increased costs of providing additional channels and quality. Consequently, inflating 1983 rates to 1993 dollars and then dividing by the number of channels is not an appropriate method to derive a reasonable price per channel.

Disincentives to Add Channels

The CFA retiering discussion (at 94ff) extends the CFA method of pricing the basic tier to the most popular cable networks, and possibly, to other networks as well (if they are bundled with any of the most popular ones). This

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18 Warren Publishing, Inc., *Television & Cable Factbook*, Cable & Services Volume No. 60 (Services – Part II), 1992, at G - 64.

places a price constraint on all existing and new channels, regardless of what they cost.

New channels added to the basic tier or any tier containing a top 30 cable network would effectively have to be added for free. A new channel added to an expanded basic tier that does not contain any of the top 30 cable networks could be added with a rate up to the average per channel rate of the system, but the basic rate and perhaps other expanded basic rates would have to decrease. It is quite possible that the net effect would be to reduce overall revenues. The overall effect, of course, is to discourage both existing and future high-quality, high-cost cable network services.

Disincentives Resulting From the Proposed Quality Index

Basic rates in the CFA proposal depend on a quality index that seems specifically designed to discourage innovation in programming. The proposed quality index is the ratio of the number of "top 30" networks currently offered to the maximum number of "top 30" networks offered from 1986 to 1992. (CFA Comments at 98.) CFA provides no rationale for why the number of "top 30" networks serves as an indicator of programming quality on any cable system. Some networks that are not among the top 30 are highly valued by certain subscribers. For example, foreign language networks and regional sports networks may be among the most valued networks on some systems, but they may not be among the "top 30" networks.

Basing a regulatory standard on such a subjective measure as program quality is likely to distort programming incentives. CFA's proposed quality index indicates just how perverse regulation of this sort can be. While it is not clear how CFA intends "top-30 network" to be defined, one possibility is the number of subscribers or viewers. If so, cable programming would be biased

toward material with general appeal as opposed to appeal to minority tastes, and hence would work against diversity in programming, including educational programs.

Under CFA's proposal, an operator that drops one of the top 30 networks to experiment with a less popular service or a new network must reduce its rates. It is unlikely that anyone will start a new cable network when operators face a rate mechanism that gives them little incentive to add new channels and strong disincentives to replace many established networks. What this index will not discourage is deterioration in quality. An operator that drops a non-top-30 network and deactivates its channel will not have to reduce rates.

The quality index also may greatly reduce competition among the top 30 cable networks. A cable operator that wishes to drop a top 30 cable network must either replace it with another top 30 network or lower rates. Thus, under the CFA proposal the top 30 networks can raise prices or reduce program quality knowing that they are protected from competition from new or less popular networks.

Problems with the Overall Profitability Indicator

The proposed CFA test on overall profitability is very unclear. CFA suggests that the Commission use the share of basic revenues in total cable operator revenues as an indicator of cable system profits. The basic revenue share, however, has no necessary economic relationship to overall cable system profits. Furthermore, after claiming that a high basic revenue share indicates that basic rates are too high, CFA suggests that a low basic revenue share would show that pay services are very profitable, so that basic rates could be lowered! CFA alleges that the basic revenue share rose under deregulation because of the industry's "abusive" pricing practices. It seems much more likely that if the share of basic

rose, it rose because the number and quality of basic services expanded to a greater extent than was the case for pay services.

Projected Rates

CFA estimates that its proposal would yield a national average 1993 rate of 37.8¢ per channel. Deflated, this corresponds to approximately 30¢ per channel in 1986 dollars. While this is slightly larger than SPR's hypothesized rate, it is still significantly below the average price per channel *prior* to deregulation.[19]

Summary

CFA argues that, absent sufficient instances of effective competition, cable systems eventually should be regulated on the basis of cost-of-service, but in the interim they propose a form of price cap regulation distinguished chiefly by its hostility to product innovation. Their proposal contains a number of disincentives to cable systems adding channels or upgrading service, and to the development of new cable programming services.

CFA notes that basing regulation on systems where there is effective competition is preferable to cost-based regulatory methodologies,[20] but they too do not feel that there is a sufficient number of effectively competitive systems to form the basis of a regulatory approach.[21] However, as discussed previously, this is not the case, and a rate-based benchmark approach eliminates the regulatory distortions associated with CFA's approach to regulation.

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19 FCC *Report* in MM Docket 89-600, *op. cit.*, Appendix F.

20 CFA Comments at 87.

21 CFA Comments at 84.

SMITH and KATZ

The only significant difference between the "cost-of-service benchmark" regulation that Smith and Katz propose and traditional rate-of-return regulation is that Smith and Katz do not call for detailed firm-specific analyses of costs. Instead, they would have the Commission collect a limited amount of information about each system and then put that information in a model that would estimate the system's revenue requirements.

Difficulties in Bench Marking Costs

Given the large number of cable systems in this country, it probably is impractical for regulators to analyze the costs of each one of them. Nonetheless, the use of a benchmark model to estimate revenue requirements poses a significant risk. If the model does not capture all the variables that have a significant effect on revenue requirements, or if it mis-specifies the effects of these variables, then it will incorrectly estimate revenue requirements. Overestimates may yield excess profits for the cable operator; underestimates may cause the system to go out of business and customers to lose service. Smith and Katz present no evidence that the variables included in their model capture all or most of the variation in costs among systems. Nor do they describe the model's specific parameters. The model could be parameterized in a way that underestimates requirements of many systems. Thus, a cable system may have to pay the price of above average cost operations, rather than being allowed to pass it through to rate payers. For example, model parameters determined by the experience of the average system could doom half the industry to indefinite losses.

Like NAB/SPR, Smith and Katz would use replacement cost to value the rate base. (Smith and Katz Report at 9 and Appendix A). We have already visited that issue in our comments on the NAB/SPR proposal. In fact many of

our comments on that proposal, such as the difficulty of measuring the rate of depreciation, apply also to Smith and Katz.

Smith and Katz seem to believe that it will be quite easy to measure capital costs and establish a few "typical" systems that can be easily adjusted to conform to the actual experience of the over 11,000 cable systems in the U.S. We doubt this.

While acknowledging that intangible assets should not be ignored, Smith and Katz assume that there is little going concern value in the cable industry (at 10). This assumption is unsound. New systems must engage in expenditure merely to get the word out, and to get subscribers signed up initially. Current penetration rates and revenues reflects years of growth—and usually an initial period of start-up losses.

Difficulties in Allocating Costs

The Smith-Katz proposal relies on a number of apparently arbitrary allocation formulas. For example, many joint and common costs are allocated among services on the basis of subscriber counts. However, when allocating costs to the basic tier, they ignore the fact that expanded basic subscribers and pay subscribers also take the basic tier. Hence, under their model, if no subscribers take *only* the basic tier Smith and Katz would allocate none of their "per-subscriber" expenses to the basic tier, even though all subscribers take this tier.

Smith and Katz take any cost allocation problems that a local franchising authority would face when evaluating service costs and place the burden of solving them on the Commission. For example, the Commission faces the problem of creating a consistent methodology for allocating various centralized multiple-system operator (MSO) costs among systems (and franchises) and for allocating

costs to cable and non-cable related activities. Thus the Commission will require substantial resources to implement this proposal.

Incentive Distortions

The Smith-Katz proposal suffers from most of the traditional defects of rate-of-return regulation. Using a benchmark may pose less risk to incentives than traditional rate-of-return regulation, because many aspects of individual system behavior would not affect estimated revenue requirements, but important incentive problems remain. Systems would still have several ways to influence revenue requirements. In fact, the SPR Comments (at 7-10) details at length the problems of adopting a benchmark that accurately tracks noncapital costs. Because Smith and Katz do not describe the benchmark model in detail, its effect on incentives is unclear.

As was the case with the SPR proposal, it is difficult to see why, under the Smith-Katz proposal, a regulated system would ever upgrade its plant. The scheme permits each operator to earn a return based on the benchmark plant regardless of the condition of that operator's actual system. The operator has no incentive to be better than the typical plant. Depending upon how upgrades are factored into the depreciated replacement cost of the plant, the system may never be able to recover its upgrade costs plus a fair return.

Proposed Interim Rates

Like the CFA, Smith and Katz propose that basic and expanded basic should be regulated under the same standard. The Coalition of Communities proposed interim rate is 32¢ per channel for both basic and expanded basic service.[22] This rate is lower than the average rate per channel from Smith and

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22 Coalition Comments, Appendix 2 at 2.

Katz's own survey of overbuild and municipal systems. The average overbuild system in their sample has a per channel rate of 41¢; the sample median rate is 35¢. (Neither of these numbers is subscriber-weighted. The likely more meaningful subscriber-weighted average rate in their overbuild sample is 60¢ per channel.) Similarly, the average municipal system according to Smith and Katz has a per-channel rate of 44¢ (not subscriber-weighted) and an average subscriber-weighted rate of 40¢, also well above the proposed interim rate.

Summary

Smith and Katz propose a benchmark approach to cost-of-service regulation. While this approach may mitigate some of the deleterious incentives of traditional cost-of-service regulation, many of those disincentives remain and some new disincentives are created. Additionally, the proposal entails incurring the burdens and costs of administering cost-of-service regulation.

Smith and Katz also recognize that there are advantages to adopting a regulatory methodology based on systems that meet effective competition, but opt for their cost-of-service benchmark approach after arguing that it is unlikely that there is a sufficient number of effectively competitive systems to enact a rate-based regulatory methodology.[23] However, as discussed previously, this is not the case, and a rate-based benchmark approach eliminates the regulatory distortions and costs associated with their cost-of-service benchmark approach to regulation.

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23 Smith and Katz Report at 3-4.